

The North Carolina Department of Transportation Bridge Maintenance unit set forth standards for evaluating existing bridge structures. A sufficiency index number has been calculated for each bridge for the purpose of establishing eligibility and priority for replacement. The bridges with the highest priority are replaced as Federal-Aid funds and State funds are made available.

A sufficiency rating was used in the analysis to determine the deficiency of each bridge. The sufficiency rating is a method of evaluating factors that determine whether a bridge is sufficient to remain in service. Factors used include: structural adequacy and safety, serviceability and functional obsolescence, essentiality for public use, type of structure, and traffic safety features. The result of this method is a percentage. One hundred percent represents an entirely sufficient bridge and zero percent represents an entirely insufficient or deficient bridge. A sufficiency rating of 50 percent or less qualifies for Federal Bridge Replacement Funds.

The coding guide for North Carolina Bridge Inventory is based on the standards set forth by the Federal Highway Administration (FHWA).

The two different classifications for bridges in need of rehabilitation are as follows:

- Structurally Deficient: Condition rating of 4 or less for either of the following:
- Deck Superstructure - Substructure
- OR
- An appraisal rating of 2 or less for either of the following:
- Structural Condition
 - Waterway Adequacy
- Functionally Obsolete: An appraisal rating of 3 or less in either of the following:
- Structural condition
 - Waterway adequacy
 - Deck Geometry
 - Under Clearance
 - Approach Roadway Alignment

Tables 6 and 7 show structurally deficient and functionally obsolete bridges with sufficiency ratings of 50 percent or less. Only those bridges with ratings of 50 percent or less are eligible for federal bridge replacement funds. The locations of these bridges are in **Figure 6**.